Appendix A

ANALYSIS OF INCENTIVE REGULATION FOR RATE-OF-RETURN COMPANIES

Introduction

In its FNPRM (¶ 235) on the MAG Plan, the Commission seeks comment on the extent to which a productivity offset or initial rate reduction should be part of any alternative regulatory plan for ROR (rate-of-return) carriers, as well as the means for establishing a productivity offset and the level at which it should be set. In this appendix, historical data for the NECA common line and traffic sensitive pools are used to estimate the productivity offset. First, AT&T's prior analysis of the MAG plan is updated to include data for the year 2000 and revised to more accurately model special access rates. Second, AT&T's proposed alternative to the revenue per line (RPL) mechanism proposed by MAG is presented and the productivity factor associated with this proposal is estimated.

The analysis supports AT&T's prior conclusion, as well as the position of numerous commenting parties, that the incentive regulation scheme proposed in the MAG plan is likely to provide ROR carriers with a substantial windfall. Growth in the GDP Price Index (GDP-PI) tends to exceed increases in the ROR carriers' costs per line, and thus the use of annual GDP-PI adjustments must be accompanied by an X-factor in order for both the MAG RPL mechanism and AT&T's proposed alternative to be consistent with the trend in carriers' cost per line.

Data for the NECA common line and traffic sensitive pools presented in this appendix indicate that during the 1990s historical growth in the GDP-PI has exceeded both the growth in pooled revenue per line and growth in embedded costs per line. The likely impact of MAG is estimated by calculating what LEC switched access revenues would have been if the MAG plan for incentive regulation had been in effect historically, with primary emphasis on the recent five year period from 1995 to 2000. Using NECA data for the common line and traffic sensitive pools, AT&T demonstrates that if all the ROR carriers had been operating under the MAG plan during those years, they would have received substantially more revenue than was actually obtained, and that an X-factor of about 4.7% would have resulted in revenue neutrality.

A similar analysis is also provided for AT&T's alternative proposal, which retains the RPL mechanism for the common line category, but utilizes conventional price cap formulas to cap traffic sensitive and special access rates. Evidence is presented in support of applying the RPL mechanism to common line without any annual inflation or productivity (i.e., GDP-PI minus X) adjustments, while applying conventional price caps to the other services with an X-factor of about 9.6%.

Updated Analysis of MAG Proposal

The basic premise of the MAG incentive regulation scheme is fairly simple. A carrier is entitled to receive a certain amount of revenue from the pool for each access line it provides, with the revenue per line (RPL) amount adjusted each year for inflation using the GDP-PI, the same index used for the price cap carriers. Growth in a carrier's common line and traffic sensitive revenue is thus approximately equal to the growth in its lines plus the rate of inflation.[1] Tables 1 and 2 attached show that this growth exceeds the historical growth in revenues and revenue requirements for the NECA common line and traffic sensitive pools. Under the MAG plan, this additional revenue would come mainly from ever-increasing subsidy support, rather than from increasing interstate access charges.

Historical data for the NECA common line (CL) pool from 1990 to 2000 are summarized in Table 1. A revenue requirement for the pooling companies is calculated based on their expenses, net investment, an 11.25% rate-of-return, and a 39% marginal income tax rate. In addition, universal service contributions (i.e., flowback), which amounted to about $40 million in 1998 and 1999 but do not represent a cost of providing service, are removed to obtain the pool's adjusted revenue requirement.

Various growth rates for the 1990-2000 and 1995-2000 periods are shown in the lower portion of the table. The growth in GDP-PI and lines combined represents the growth in revenue that would result from the MAG plan. For both the 1990-2000 and 1995-2000 periods, this growth exceeded that of both common line revenue and common line revenue requirements.

Historical data for the NECA traffic sensitive (TS) pool are summarized in Table 2, with selected growth rates shown in the lower portion of the table. In addition to adjusting the pool's revenue to generate an 11.25% return, special access revenues are removed in order to focus on the trend in switched access revenue. (The MAG proposal did not provide any details on how special access rates would be capped.)

Because NECA does not report the total number of access lines for companies in the TS pool, the growth in lines was estimated based on access minutes (which NECA does report) and the assumption that minutes per line for the pooling companies grew at the same rate as that for the entire ROR LEC industry. The growth in lines for pooling companies is thus estimated as the growth in pooled access minutes minus the growth in industry minutes per line. As discussed below, there are problems with the TS pool data prior to 1995, presumably as a result of carriers leaving the pool. Focusing on the growth rates for 1995 to 2000, which are shown in the lower portion of Table 2, it is clear that the growth in GDP-PI plus lines far exceeds the growth in either TS revenue or revenue requirements.

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[1] More precisely, the rate of growth in revenue can be calculated as:

$$\%\Delta Rev = (1+\%\Delta Lines)*(1+\%\Delta GDP\text{-}PI) - 1.$$

The tendency for revenues to grow under MAG by far more than the growth in costs means that over time carriers will enjoy ever increasing amounts of excess revenues and earnings. This is illustrated in Table 3, which shows the trend in switched access revenues (common line plus traffic sensitive) if all ROR carriers had operated under the MAG Plan for incentive regulation from 1995 to 2000. The calculations are based on illustrative data whereby data for the NECA pools are used to represent the entire ROR carrier industry.

The historical period of 1995 to 2000 was selected to represent recent history while also being of long enough duration to establish a trend. In addition, it appears that a substantial number of companies exited the NECA traffic sensitive pool during the years 1993 to 1995, and, as a result, trends in the NECA data for those years cannot be used to represent the industry. Traffic sensitive minutes reported by NECA declined from 1993 to 1995, while total minutes for the ROR carriers increased as they normally do. As a result, the trend in NECA pooled revenues and revenue requirements for those years cannot be considered representative of the entire ROR LEC industry. It is likely that those companies leaving the pool had relatively lower costs, causing the pool's overall average cost per unit to rise, even though unit costs may have been declining for individual companies.[2] The situation appears to have stabilized since 1995, with growth in NECA TS minutes similar to that for all ROR carriers in total. 1995 is thus an appropriate year to use as the initial year in the analysis.

In the upper portion of Table 3, industry revenues are developed on the basis of revenues reported by NECA for its common line and traffic sensitive pools. Data on total access lines reported by the pool were compared with total ROR industry lines to estimate the percentage of industry CL revenue represented by the pool. To account for the fact that rates within the pool are somewhat higher than those of non-pooling companies, the fraction of pooled lines to total lines was multiplied by a factor of 1.0135, the ratio of NECA's CL revenue per line to that for ROR LECs as a whole.[3] The resulting fraction provides an estimate of the percentage of total ROR LEC CL revenue that resides in the pool. Industry revenues and revenue requirements are then estimated by dividing the pool amounts by this percentage. The key assumptions underlying these calculations are that: (a) the ratio of NECA's revenue per line to that for ROR LECs as a whole has remained constant over the period; and (b) the financial performance of companies outside the pool has been similar to that of the pool. In any case, because the vast majority of ROR companies are members of the common line pool, NECA pool data provide a reasonably proxy for the entire industry.

With the traffic sensitive pool, the number of participants is considerably smaller. Data on access minutes reported by the pool were compared with total ROR industry minutes to estimate the percentage of industry TS revenue represented by the pool. To account for the fact that rates within the pool are somewhat higher than those of non-pooling companies, the fraction of pooled minutes to total minutes was multiplied by

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[2] While minutes in the traffic sensitive pool declined from 1993 to 1995, the pool's overall revenue per minute rose. The longer-term trend is for minutes to grow while revenue per minute declines over time.
[3] Calculated from prospective data in the June 2000 TRP filings.

a factor of 1.184, the ratio of NECA's TS revenue per minute to that for ROR LECs as a whole.[4] The resulting fraction provides an estimate of the percentage of total ROR LEC TS revenue that resides in the pool. Industry revenues and revenue requirements are then estimated by dividing the pool amounts by this percentage.

It should be emphasized that, because the data on ROR carriers are incomplete, the calculations presented here are intended mainly for illustrative purposes. They illustrate the impact that implementation of the MAG plan in its current form is likely to have, as well as the type of data and analysis that are needed to formulate a better version of the plan. The Commission should require carriers to provide this data in a format that can be readily be analyzed by the Commission and other interested parties.

To simulate the impact of MAG incentive regulation on switched access, the analysis starts with estimated industry revenue requirements per line (RPL) in 1995 and adjusts the RPL at the beginning of each subsequent year by the percentage increase in the GDP-PI.

- The estimated impact of MAG depends critically on how the initial RPL is calculated. In this analysis, it is calculated on the basis of revenue requirements associated with the authorized ROR of 11.25%. This has the effect of reducing annual revenues by about $16 million compared to an initial RPL calculated on the basis of actual revenues for 1995.

- For the inflation adjustments, 4th quarter values of the GDP chained price index (GDP-PI) were used, with each year's RPL calculated by adjusting the previous year's RPL by the most recent 4th quarter to 4th quarter growth in GDP-PI.

- Total switched access revenue (common line plus traffic sensitive) is then calculated by multiplying each year's RPL by the corresponding number of access lines.

Results: Revenues generated by the MAG plan are shown in the line labeled "Total CL + TS revenue" in the middle of Table 3. Excess revenues resulting from MAG are shown in the following line, which shows the difference between revenues under MAG and revenue requirements. The amount of excess revenue increases each year, reaching a total of $749 million for the common line and traffic sensitive categories in 2000. For the entire five-year period, the cumulative amount of excess revenue is nearly $2 billion.

The MAG plan generates excess revenues because it does not contain any type of X-factor that reflects growth in LEC productivity and declining unit costs. A reasonable X-factor can be estimated by calculating the X which, when included in the RPL mechanism, results in revenues for the year 2000 that are equal to the LECs' revenue requirement. This is conceptually the same type of analysis performed by the Commission staff in its Imputed X-Factor Study done for the price cap LECs[5] and results

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[4] Calculated from prospective data in the June 2000 TRP filings.

[5] *Further Notice of Proposed Rulemaking*, CC Docket Nos. 94-1 and No. 96-262, released November 15, 1999, Appendix C.

in an imputed X-factor of 4.72% for the common line and traffic sensitive categories.[6] Because this figure does not include a consumer productivity dividend, nor does it reflect any decline in the LECs' cost of capital over the period, it represents a very conservative estimate of what an appropriate X-factor would be.

It should be noted that this X-factor is not directly comparable to the X-factor used for the price cap LECs, because the overall price cap mechanisms differ. Under MAG, each carrier's revenue per line, rather than individual rate elements, is governed by the price cap formula. Because the number of access lines has a tendency to grow by less than usage (e.g., minutes) and other billed volumes that depend on usage, the X-factor associated with MAG will be somewhat lower than that associated with conventional price cap regulation. Nevertheless, an X-factor is still needed to protect the interests of ratepayers, contrary to MAG's assertions.[7]

MAG contends that productivity growth for smaller LECs is less than that of the major LECs, arguing that "rural LECs do not have the size or operating scale to accommodate an annual productivity offset" (replies at v., 22). However, MAG offers no support for this. The undisputed fact that small LECs tend to have higher unit costs says nothing about the trend in their costs over time and does not imply that small LECs experience less growth in productivity. There is no reason to believe that prices of small LECs should perpetually increase relative to those of larger LECs, as MAG implicitly advocates.

MAG claims its plan is revenue neutral,[8] however, this claim is based on projections that are highly dependent on certain assumptions. Although MAG's assumptions are not totally unreasonable, they are tilted in favor of the MAG plan and against continued ROR regulation. For instance, MAG's assumption of low inflation, i.e., 1.5% annual increases in the GDP-PI, is favorable for the MAG plan, while its assumed 5.8% growth in TS revenue requirements is higher than recent experience (see Table 2) and unfavorable for continued ROR regulation. MAG's claim of revenue neutrality is also predicated on the fact that it ignores the additional High Cost Loop Fund costs that will result from its plan, costs that MAG itself projects will be nearly $300 million higher in 2006 than under current rules. These additional costs would be borne by consumers of telecommunication service in general.

AT&T's proposal

As an alternative to the MAG plan, AT&T proposes a synthesis plan that combines various elements of the MAG plan, the CALLS plan, and conventional price cap regulation. The plan involves capping common line rates on a revenue per line (RPL) basis and capping other rates – i.e., traffic sensitive and special access – via a

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[6] The methodology used in this study is compared to that of the FCC staff in Attachment 1 below.
[7] MAG contends that no X-factor is needed because the RPL mechanism limits growth in revenue, but offers no support for this claim (MAG replies at 25). AT&T's analysis indicates that an X-factor is still needed, albeit one that is significantly less than that associated with conventional price caps.
[8] MAG ex parte, 12/8/00.

conventional price cap mechanism, with X-factor reductions applied to the traffic sensitive and special access baskets. As with AT&T's analysis of the MAG plan, the appropriate X-factor can be estimated on the basis of historical trends.

Common line rates: The MAG proposal to cap common line rates on a revenue per line basis is reasonable and, except for its inflation adjustment, is similar to the mechanism adopted in the CALLS plan. Because costs in the common line category are primarily a function of the number of subscriber lines, and most of the revenue (once per minute CCL charges are phased out) is obtained from per line SLC charges, it is reasonable to adopt a revenue per line mechanism. Tariff filing procedures that incorporate USF support and potential SLC deaveraging have already been developed in connection with CALLS. It is likely these procedures could be adapted for the non-price cap companies with only minor modifications, if any.

There is, however, no evidence to support the MAG proposal that the RPL be adjusted each year by the increase in the GDP Price Index. As shown in Table 1, the trend in common line revenue requirements per line has been relatively flat over the past several years. Since 1995, common line revenue requirements per line for the NECA pool have risen only slightly, increasing at a 0.39% annual rate. It is thus more reasonable to adopt a formula that permits revenues to increase based on just the growth in lines, as in CALLS, than on growth in lines plus inflation.

In addition to being consistent with the trend in unit costs, a simple cap on revenue per line would also be consistent with stability in rates and subsidy requirements. Once SLCs reach their caps and the CCL charge is eliminated, most of the access revenue will come from SLCs and will tend to increase over time in proportion to growth in lines. With total common line revenue capped on a per line basis, subsidy requirements will also increase roughly in proportion to growth in lines. Common Line USF support per line will be relatively constant over time and thus predictable. Under the MAG proposal to adjust the RPL annually for inflation, however, support requirements are likely to increase substantially from year to year.[9]

Traffic sensitive and special access rates: These rates should be capped directly via a conventional price cap mechanism with separate baskets for the traffic sensitive and special access categories. Average price indexes (APIs) should be calculated to measure the price level in each basket, with the maximum permitted API determined by the increase in GDP-PI minus the X-factor.[10] The procedures for doing these calculations and filing TRPs have been well established over the past decade of price cap regulation.

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[9] This can be illustrated by a simple example. Suppose a LEC's common line revenues amount to $100 million, $80 million of which is obtained from SLCs and the other $20 million from common line USF support. If subscriber lines increase by 3% and the GDP-PI increases by 2%, capped revenues increase by about 5% to $105 million. SLC revenue increases by the 3% growth in lines to $82.4 million. In order to provide total CL revenue of $105 million, USF support has to increase to $22.6 million. The 13% growth in USF is far more than the percentage growth in lines plus GDP-PI.

[10] Specifically, the API is not permitted to exceed the PCI (price cap index) for that basket, which is adjusted each year by the change in GDP-PI minus an X-factor. The PCI can also be adjusted for exogenous cost changes if deemed appropriate.

It is not clear what advantages a revenue per line cap, as proposed by MAG, would offer, as the MAG proposal did not provide any justification for its RPL mechanism applied to traffic sensitive and special access rates. Indeed, as shown in AT&T's Comments (pp. 5-6), there are serious drawbacks associated with a revenue per line mechanism applied to traffic sensitive rates.

The appropriate X-factor for traffic sensitive rates can be inferred from the data in Table 2 by examining the trend in TS revenue requirements per minute for the NECA pool. From 1995 to 2000, TS revenue requirements per minute (excluding special access) declined by 8.3% annually. The average inflation rate, as measured by the GDP-PI, was 1.7% during this period. The imputed X-factor, calculated as the difference between inflation and the trend in unit costs, is thus about 10%.

The impact of AT&T's proposal applied to historical data is shown in Table 4, which shows what LEC revenues would have been if AT&T's proposal had been in effect from 1995 to 2000. Price cap revenues are calculated as follows:

- Price caps are initialized by first adjusting 1995 revenues to provide an 11.25% return for both the common line and traffic sensitive categories, as was done in analyzing the MAG plan.

- Since common line revenues are capped at a constant revenue per line, total common line revenue grows in direct proportion to the number of access lines.

- The level of traffic sensitive rates is represented by TS revenue per minute, so that TS revenue varies directly with the number of access minutes. Because over 90% of TS revenue is obtained from per minute charges, while the remainder is obtained from charges for dedicated facilities that tend to increase with the amount of traffic, this is a reasonable assumption. The impact of price cap adjustments on TS rates can thus be simulated by adjusting the TS revenue per minute each year by the percentage increase in GDP-PI minus the X-factor.

As shown in Table 4, an X-factor of 9.63% applied to traffic sensitive rates would have resulted in revenues that provide an 11.25% return in 2000.

Note that this analysis does not include special access, as there was not sufficient data in NECA's TRP filings to do so. Instead, NECA's data on special access are analyzed separately in Table 5, which shows TRP data for Voice Grade and High Capacity (DS1) services taken from the 1995 and 2000 annual filings. Rates, demand quantities, and revenues for the 1995-96 tariff year are shown on the left-hand side of the table, with similar data for the 2000-01 tariff year shown in the center. (These services accounted for approximately 81% of total special access revenue in the first year and 65% in the last year.)

The right-hand side of Table 5 shows that application of a 5.02% X-factor to the initial rates would have provided the same amount of revenue as did the July 2000 rates.

The rates shown on the right-hand side of Table 5 rates are those that result from applying a series of 5 successive price cap adjustments with a 5.02% X-factor to the initial 1995-96 rates, which has the effect of reducing the initial rates by 15.5%. 5.02% thus constitutes the imputed X-factor for NECA's Voice Grade and Hi-cap special access services over a period similar to that used in the rest of this analysis. This suggests that the composite X-factor for traffic sensitive and special access may be somewhat less than the 9.63% estimated for traffic sensitive alone. Note, however, that the data used here are not complete, and special access accounts for only about 12.5% of the ROR LECs' total interstate revenue.[11]

Conclusion

AT&T's updated analysis of the MAG plan provides further support for the Commission's conclusion that the plan's inflation-adjusted RPL mechanism is far too generous to the carriers, as it would give them all the benefits of productivity gains without any benefit to access customers. AT&T thus offers an alternative plan that, like the CALLS plan, seeks to balance the interests of carriers and ratepayers. Analysis of NECA data for the common line and traffic sensitive pools leads to the tentative conclusion that an X-factor in the neighborhood of 10% should be applied to the LECs' traffic sensitive and special access services. An X-factor of 10% appears to be reasonable based on the following considerations:

- An X-factor of 9.63% applied annually from 1996 to 2000 to traffic sensitive rates results in total common line plus traffic sensitive revenue equal to year 2000 revenue requirements at an 11.25% rate-of-return.

- A similar exercise applied to NECA special access rates over approximately the same period yields a somewhat lower X-factor of 5.02%, but the available TRP data do not include all special access services.

- In light of the fact that the smaller price cap carriers have reduced their switched access rates by far more than ROR carriers during the past five years,[12] it is reasonable to expect the ROR carriers to improve upon their recent price performance. Adding a modest Consumer Productivity Dividend to historically achieved X-factors leads to an X-factor in the neighborhood of 10%.

- Since traffic sensitive and special access services account for only about 35% of the ROR LECs' interstate revenue,[13] an 8% rate reduction for these services (based on a 2% increase in GDP-PI minus a 10% X-factor) is equivalent to an across-the-board reduction in all interstate rates of only 2.8% (35% times 8%). Because demand is likely to grow by far more than 2.8% annually, the LECs will still be able to realize moderate growth in interstate revenues.

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[11] Based on prospective data from the December 17, 2001 access charge tariff filings.
[12] See Appendix B.
[13] Based on prospective data from the December 17, 2001 access charge tariff filings.

Finally, it is worth reiterating that, because the data on ROR carriers are incomplete, the calculations presented here should be regarded as tentative in nature. The Commission should require carriers to provide sufficient data in a format that can be readily be analyzed by the Commission and other interested parties.

Attachment 1
Comparison with The FCC Staff Imputed X Study

As part of the analysis underlying its Further Notice of proposed Rulemaking on prescribing the X-factor in the local exchange carrier (LEC) price cap formula, the FCC staff performed an imputed X study (FCC 99-345, November 15, 1999, Appendix C). Like the analysis done here, the FCC study calculated imputed X-factors that would, if applied to historical data, result in the LECs as a group earning a certain rate-of-return during the final year of the study period. Using interstate financial data for the price cap LECs, and a subset consisting of just the RBOCs, the FCC staff calculated imputed X-factors for the periods 1991 to 1995 and 1991 to 1998. There are several differences between the FCC study and the one presented here:

- The FCC's imputed X-factors were chosen so as to produce a "competitive" rate of return, which was estimated to be 9.65% for 1995 and 8.68% for 1998. AT&T's study used the authorized rate of return of 11.25% as the target return for 2000. Because AT&T's study did not reflect any reduction in the cost of capital, as did the FCC, it provides a more conservative estimate of the X-factor.

- The FCC study took into account the demand response that would have resulted from lower access rates had the higher X-factors been in effect during the historical period. The FCC also provided X-factor calculations that did not assume any demand response. No demand response is assumed in this study, making it a more conservative approach. This is reasonable, however, since the imputed X-factors calculated here result in revenues that do not differ much from those actually realized.

- Because the FCC study applied to LECs who had already been operating under price cap regulation while this study applies to ROR LECs, the mechanics of calculating imputed X-factors differs between the two studies. The FCC's calculations involved determining how much the historical X-factors in effect would have to be raised in order to reduce earnings to the competitive return. This study involves determining what the X-factor would have to have been in order for the level of access rates, measured in terms of TS revenue per minute, to generate the target level of earnings.

- The FCC staff also performed additional calculations that determined the X-factor required in each year to maintain the LECs' average rate of return at the level of the previous year. This was not done here.

TABLE 1 - COMMON LINE POOL DATA

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
NECA CL pool results (1):											
IXC Access revenues	162,356,354	147,717,943	143,844,616	163,458,470	192,870,614	193,505,188	192,583,677	197,284,932	291,480,289	343,638,609	378,407,162
End user revenues	338,015,374	343,606,106	353,842,015	370,889,531	387,503,795	409,871,512	432,953,709	462,837,325	492,650,517	527,554,053	560,771,229
Long term support	262,563,073	271,729,978	305,735,598	322,608,953	346,644,678	382,255,111	425,624,307	469,515,463	472,564,542	472,774,206	477,262,032
Total CL revenues	**762,934,801**	**763,054,027**	**803,422,229**	**856,956,954**	**927,019,087**	**985,631,811**	**1,051,161,693**	**1,129,637,720**	**1,256,695,348**	**1,343,966,868**	**1,416,440,423**
Total expenses	632,084,904	627,198,445	648,208,584	691,841,161	754,674,027	810,667,325	864,492,829	919,823,658	1,024,316,159	1,097,327,303	1,163,823,063
Avg. net investment	1,153,627,221	1,164,165,744	1,186,562,657	1,294,035,335	1,429,478,840	1,616,249,419	1,716,524,139	1,808,320,084	1,888,151,194	1,945,221,547	2,019,963,250
Return (residue for dist.)	130,849,897	135,855,582	155,213,645	165,115,793	172,345,060	174,964,486	186,668,864	209,814,062	232,379,189	246,639,565	252,617,360
ROR (residue ratio)	11.34%	11.67%	13.08%	12.76%	12.06%	10.83%	10.87%	11.60%	12.31%	12.68%	12.51%
Return @ 11.25%	129,783,062	130,968,646	133,488,299	145,578,975	160,816,370	181,828,060	193,108,966	203,436,009	212,417,009	218,837,424	227,245,866
Tax adjustment	(682,075)	(3,124,434)	(13,889,975)	(12,490,752)	(7,370,802)	4,388,186	4,117,442	(4,077,771)	(12,762,705)	(17,775,139)	(16,221,119)
Flowback removal (2)									(39,592,000)	(40,509,000)	-
Adjusted rev. requirement	**761,185,892**	**755,042,657**	**767,806,908**	**824,929,384**	**908,119,594**	**996,883,571**	**1,061,719,237**	**1,119,181,896**	**1,184,378,463**	**1,257,880,588**	**1,374,847,809**
Marginal tax rate	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Access lines (2)	7,511,169	7,635,403	7,998,789	7,990,655	8,582,626	8,951,113	9,584,556	9,933,111	10,502,918	11,064,890	12,109,021
Rev. requirement per line	**101.34**	**98.89**	**95.99**	**103.24**	**105.81**	**111.37**	**110.77**	**112.67**	**112.77**	**113.68**	**113.54**
Data on inflation:	4Q89	4Q90	4Q91	4Q92	4Q93	4Q94	4Q95	4Q96	4Q97	4Q98	4Q99
GDP Price Index	84.24	87.76	90.47	92.56	94.79	96.74	98.79	100.63	102.49	103.69	105.31
% increase		4.18%	3.09%	2.31%	2.41%	2.06%	2.12%	1.86%	1.85%	1.17%	1.56%

Growth rates	**1990-1999**	**1990-2000**	**1995-1999**	**1995-2000**
CL revenue	6.49%	6.38%	8.06%	7.52%
CL revenue requirement	5.74%	6.09%	5.99%	6.64%
Access lines	4.40%	4.89%	5.44%	6.23%
CL rev. requirement per line	1.29%	1.14%	0.52%	0.39%
GDP Price Index	2.34%	2.26%	1.75%	1.71%
GDP-PI & lines combined	6.84%	7.26%	7.29%	8.05%

Notes:

(1) Source of NECA pool results: FCC Monitoring Reports (Docket 87-339), Table 7.1 (1990-96), Table 3.3 (1996-98), Table 3.5 (1998-99), Table 3.3 (1999-2000).

(2) Access lines and flowback (universal service contributions) obtained from NECA TRP filings.

Access lines for 1990, which were not reported in NECA's 1991 TRP, are estimated on the basis of end user revenue, assuming same end user revenue per line as in 1991.

TABLE 2 - TRAFFIC SENSITIVE POOL DATA
With special access removed

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
NECA TS pool results (1):											
Access revenues	639,950,823	697,679,285	847,779,446	914,014,959	880,902,109	899,356,925	906,523,958	895,218,849	669,902,128	664,623,362	695,006,811
Local switching support									295,469,997	278,294,099	287,756,443
Total TS revenues	**639,950,823**	**697,679,285**	**847,779,446**	**914,014,959**	**880,902,109**	**899,356,925**	**906,523,958**	**895,218,849**	**965,372,125**	**942,917,461**	**982,763,254**
Total expenses	540,830,792	595,261,596	714,589,582	778,471,646	758,524,566	779,844,516	789,160,166	788,159,543	832,459,005	823,330,374	861,190,614
Avg. net investment	775,331,889	876,205,045	967,371,470	987,986,394	949,542,756	976,610,102	898,760,928	872,823,385	874,544,818	905,415,933	934,840,755
Return (residue for dist.)	99,120,031	102,417,689	133,189,864	135,543,313	122,377,543	119,512,409	117,363,792	107,059,306	132,913,120	119,587,087	121,572,640
ROR (residue ratio)	12.78%	11.69%	13.77%	13.72%	12.89%	12.24%	13.06%	12.27%	15.20%	13.21%	13.00%
Return @ 11.25%	87,224,838	98,573,068	108,829,290	111,148,469	106,823,560	109,868,636	101,110,604	98,192,631	98,386,292	101,859,292	105,169,585
Tax adjustment	(7,605,124)	(2,458,037)	(15,574,793)	(15,596,703)	(9,944,350)	(6,165,691)	(10,391,382)	(5,668,858)	(22,074,529)	(11,334,164)	(10,487,199)
Special access revenue (2)	52,163,000	57,808,000	56,668,000	50,629,000	48,675,000	43,874,000	52,213,000	51,388,000	83,101,000	98,909,000	135,841,000
Adjusted rev. requirement	**568,287,506**	**633,568,627**	**751,176,079**	**823,394,412**	**806,728,776**	**839,673,462**	**827,666,388**	**829,295,316**	**825,669,768**	**814,946,503**	**820,032,000**
Marginal tax rate	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Chargeable TS minutes (3)	11,160,443,808	11,842,118,638	12,082,805,836	13,222,836,257	12,693,759,293	12,105,386,402	12,451,777,195	13,364,965,704	14,782,195,075	15,831,783,747	18,225,517,942
Rev. requirement per minute	0.0509	0.0535	0.0622	0.0623	0.0636	0.0694	0.0665	0.0620	0.0559	0.0515	0.0450
Data on inflation:	4Q89	4Q90	4Q91	4Q92	4Q93	4Q94	4Q95	4Q96	4Q97	4Q98	4Q99
GDP Price Index	84.24	87.76	90.47	92.56	94.79	96.74	98.79	100.63	102.49	103.69	105.31
% increase		4.18%	3.09%	2.31%	2.41%	2.06%	2.12%	1.86%	1.85%	1.17%	1.56%

Growth rates	**1990-1999**	**1990-2000**	**1995-1999**	**1995-2000**
TS revenue (inc. special)	4.40%	4.38%	1.19%	1.79%
TS rev. req. (ex. special)	4.09%	3.74%	-0.74%	-0.47%
TS minutes	3.96%	5.03%	6.94%	8.53%
TS rev. req. per minute	0.12%	-1.23%	-7.19%	-8.29%
Minutes per line	NA	NA	3.07%	2.44%
Access lines (estimated)	NA	NA	3.76%	5.94%
GDP Price Index	2.34%	2.26%	1.75%	1.71%
GDP-PI & lines combined	NA	NA	5.57%	7.75%

Notes:

(1) Source of NECA pool results: FCC Monitoring Reports (Docket 87-339), Table 7.2 (1990-96), Table 3.4 (1996-98), Table 3.6 (1998-99), Table 3.4 (1999-2000).

(2) Special access revenue obtained from NECA TRP filings, RORCOS-1(H), p. 2. Data for 1997 may have been misreported.

(3) Access minutes obtained from NECA TRP filings.

TABLE 3 - SIMULATION OF MAG PLAN
Based on Illustrative Data (1995-2000)
With Special Access Removed

	1995	1996	1997	1998	1999	2000
Estimated industry revenues:						
NECA CL Revenue	985,631,811	1,051,161,693	1,129,637,720	1,256,695,348	1,343,966,868	1,416,440,423
NECA CL Rev. Requirement	996,883,571	1,061,719,237	1,119,181,896	1,184,378,463	1,257,880,588	1,374,847,809
NECA Lines	8,951,113	9,584,556	9,933,111	10,502,918	11,064,890	12,109,021
Industry Lines	9,564,065	10,136,219	10,738,149	11,317,321	11,891,586	12,990,489
NECA/Industry cost ratio	1.0135	1.0135	1.0135	1.0135	1.0135	1.0135
NECA CL Pool % of total	94.85%	95.83%	93.75%	94.06%	94.30%	94.47%
Industry CL Revenue	1,039,097,776	1,096,856,362	1,204,923,764	1,336,102,863	1,425,139,808	1,499,308,567
Industry CL Rev. Requirement	1,050,959,892	1,107,872,849	1,193,771,099	1,259,216,451	1,333,854,087	1,455,282,598
NECA TS Revenue	899,356,925	906,523,958	895,218,849	965,372,125	942,917,461	982,763,254
NECA TS Rev. Req. ex. special	839,673,462	827,666,388	829,295,316	825,669,768	814,946,503	820,032,000
NECA TS Minutes	12,105,386,402	12,451,777,195	13,364,965,704	14,782,195,075	15,831,783,747	18,225,517,942
Industry TS Minutes (1)	22,903,762,000	24,286,811,041	26,392,898,753	28,412,215,865	32,133,321,615	35,101,503,608
NECA/ROR price ratio	1.1840	1.1840	1.1840	1.1840	1.1840	1.1840
NECA TS Pool % of total	62.58%	60.70%	59.96%	61.60%	58.33%	61.48%
Industry TS Revenue	1,437,171,334	1,493,367,641	1,493,127,033	1,567,145,170	1,616,395,927	1,598,611,925
Industry TS Rev. Requirement	1,341,797,229	1,363,461,154	1,383,173,797	1,340,358,143	1,397,021,757	1,333,905,118
Industry CL + TS Revenue	2,476,269,110	2,590,224,004	2,698,050,797	2,903,248,033	3,041,535,736	3,097,920,492
Industry CL + TS Rev. Requirement	2,392,757,121	2,471,334,003	2,576,944,896	2,599,574,593	2,730,875,844	2,789,187,716
Simulation of MAG Plan:						
Total access lines (2)	9,564,065	10,136,219	10,738,149	11,317,321	11,891,586	12,990,489
GDP-PI Adjustment		2.12%	1.86%	1.85%	1.17%	1.56%
Initial CL + TS revenue per line	250.18					
Adjusted revenue per line		255.48	260.24	265.05	268.16	272.35
Total CL + TS revenue		2,589,637,698	2,794,518,162	2,999,681,510	3,188,795,549	3,537,896,685
Excess revenue		118,303,695	217,573,265	400,106,917	457,919,705	748,708,969
Target Revenue						2,789,187,716
Imputed X-Factor						**4.72%**
Sources of revenue under MAG plan						
Total access lines (2)		10,136,219	10,738,149	11,317,321	11,891,586	12,990,489
Residence/SLB percentage		87.76%	82.45%	82.05%	81.36%	81.54%
MLB percentage		12.24%	17.55%	17.95%	18.64%	18.46%
Residence/SLB lines @ $6.50		8,895,367	8,854,069	9,286,307	9,675,192	10,591,870
MLB lines @ $9.20		1,240,852	1,884,080	2,031,013	2,216,393	2,398,619
Total SLC revenue		830,828,696	898,619,824	948,555,826	999,354,811	1,090,973,382
Special access surcharge rev.		433,321	508,254	577,643	600,914	760,223
Traffic sensitive rev. @ $0.016/min.		388,588,977	422,286,380	454,595,454	514,133,146	561,624,058
Total access revenues		1,219,850,994	1,321,414,458	1,403,728,922	1,514,088,870	1,653,357,663
Subsidy revenue (LTS,LSS,RAS)		1,369,786,704	1,473,103,703	1,595,952,588	1,674,706,679	1,884,539,023

Notes:

(1) From FCC Monitoring Report (Oct. 2001), Table 8.6, Interstate access minutes by study area, 1996-99.
2000 minutes estimated by increasing 1999 minutes by growth in common line minutes reported by NECA, Alltel, and Interstate from 1999 to 2000 in 2001 TRP (RORDMD-3). 1995 minutes from FCC Monitoring Report (Nov. 2000), Table 8.6.

(2) From FCC Monitoring Report (Oct. 2001), Table 3.3, Number of loops by study area. Average lines for each year calculated as a simple average of year-end loops for that year and year-end loops for the previous year. 2000 access lines estimated by increasing 1999 lines by growth in lines reported by NECA, Alltel, and Interstate from 1999 to 2000 in 2001 TRP (RORDMD-3).

TABLE 4 - SIMULATION OF AT&T PLAN
Based on Illustrative Data (1995-2000)
With Special Access Removed

	1995	1996	1997	1998	1999	2000
Estimated industry revenues:						
NECA CL Revenue	985,631,811	1,051,161,693	1,129,637,720	1,256,695,348	1,343,966,868	1,416,440,423
NECA CL Rev. Requirement	996,883,571	1,061,719,237	1,119,181,896	1,184,378,463	1,257,880,588	1,374,847,809
NECA Lines	8,951,113	9,584,556	9,933,111	10,502,918	11,064,890	12,109,021
Industry Lines	9,564,065	10,136,219	10,738,149	11,317,321	11,891,586	12,990,489
NECA/Industry cost ratio	1.0135	1.0135	1.0135	1.0135	1.0135	1.0135
NECA CL Pool % of total	94.85%	95.83%	93.75%	94.06%	94.30%	94.47%
Industry CL Revenue	1,039,097,776	1,096,856,362	1,204,923,764	1,336,102,863	1,425,139,808	1,499,308,567
Industry CL Rev. Requirement	1,050,959,892	1,107,872,849	1,193,771,099	1,259,216,451	1,333,854,087	1,455,282,598
NECA TS Revenue	899,356,925	906,523,958	895,218,849	965,372,125	942,917,461	982,763,254
NECA TS Rev. Req. ex. special	839,673,462	827,666,388	829,295,316	825,669,768	814,946,503	820,032,000
NECA TS Minutes	12,105,386,402	12,451,777,195	13,364,965,704	14,782,195,075	15,831,783,747	18,225,517,942
Industry TS Minutes (1)	22,903,762,000	24,286,811,041	26,392,898,753	28,412,215,865	32,133,321,615	35,101,503,608
NECA/ROR price ratio	1.184	1.184	1.184	1.184	1.184	1.184
NECA TS Pool % of total	62.58%	60.70%	59.96%	61.60%	58.33%	61.48%
Industry TS Revenue	1,437,171,334	1,493,367,641	1,493,127,033	1,567,145,170	1,616,395,927	1,598,611,925
Industry TS Rev. Req. ex special	1,341,797,229	1,363,461,154	1,383,173,797	1,340,358,143	1,397,021,757	1,333,905,118
Industry CL + TS Revenue	2,476,269,110	2,590,224,004	2,698,050,797	2,903,248,033	3,041,535,736	3,097,920,492
Industry CL + TS Rev. Requirement	2,392,757,121	2,471,334,003	2,576,944,896	2,599,574,593	2,730,875,844	2,789,187,716
Simulation of AT&T Plan:						
Total access lines (2)	9,564,065	10,136,219	10,738,149	11,317,321	11,891,586	12,990,489
GDP-PI Adjustment		2.12%	1.86%	1.85%	1.17%	1.56%
X-factor		9.63%	9.63%	9.63%	9.63%	9.63%
CL revenue per line	109.89	109.89	109.89	109.89	109.89	109.89
Total CL revenue		1,113,831,847	1,179,975,722	1,243,618,749	1,306,722,619	1,427,477,073
Initial TS revenue per minute	0.0586					
Adjusted revenue per minute		0.0542	0.0500	0.0461	0.0422	0.0388
Total TS revenue		1,316,017,589	1,319,116,536	1,309,601,832	1,355,893,524	1,361,710,643
Total CL + TS revenue		2,429,849,435	2,499,092,258	2,553,220,581	2,662,616,144	2,789,187,716
Target CL + TS Revenue						2,789,187,716
Imputed X-Factor						**9.63%**

Notes:

(1) From FCC Monitoring Report (Oct. 2001), Table 8.6, Interstate access minutes by study area, 1996-99.
2000 minutes estimated by increasing 1999 minutes by growth in common line minutes reported by NECA, Alltel, and Interstate from 1999 to 2000 in 2001 TRP (RORDMD-3). 1995 minutes from FCC Monitoring Report (Nov. 2000), Table 8.6.

(2) From FCC Monitoring Report (Oct. 2001), Table 3.3, Number of loops by study area. Average lines for each year calculated as a simple average of year-end loops for that year and year-end loops for the previous year. 2000 access lines estimated by increasing 1999 lines by growth in lines reported by NECA, Alltel, and Interstate from 1999 to 2000 in 2001 TRP (RORDMD-3).

TABLE 5 - NECA SPECIAL ACCESS DATA

	1995 TRP data 7/95 to 6/96			2000 TRP data 7/00 to 6/01			Price cap simulation 7/00 to 6/01		
Special - Voice grade	Rates	Demand	Revenue	Rates	Demand	Revenue	7/00 rates	demand	revenue
2-wire channel term.	$38.25	79,576	$3,043,782	$41.29	26,292	$1,085,597	$32.33	26,292	$849,959
4-wire channel term.	$61.21	230,076	$14,082,952	$66.07	49,080	$3,242,716	$51.73	49,080	$2,539,042
Channel mileage term.	$27.38	268,323	$7,346,684	$29.56	65,520	$1,936,771	$23.14	65,520	$1,516,178
Channel mileage facility	$2.73	1,598,396	$4,363,621	$2.94	747,492	$2,197,626	$2.31	747,492	$1,724,694
Non-recurring	$171.00	355	$60,705	$230.00	651	$149,730	$144.52	651	$94,085
Special - High capacity									
Channel term.	$198.94	30,612	$6,089,951	$176.82	215,672	$38,135,123	$168.14	215,672	$36,262,591
Channel mileage term.	$116.34	37,420	$4,353,443	$94.38	189,467	$17,881,895	$98.33	189,467	$18,629,689
Channel mileage facility	$25.10	251,407	$6,310,316	$19.14	1,589,689	$30,426,647	$21.21	1,589,689	$33,723,205
Non-recurring	$232.00	616	$142,912	$251.00	5,159	$1,294,909	$196.08	5,159	$1,011,571
Total Voice grade & Hi cap			**$45,794,366**			**$96,351,015**			**$96,351,015**
Total Special Access			**$56,666,096**			**$149,228,344**			

Price cap adjustments:

	4Q94	4Q95	4Q96	4Q97	4Q98	4Q99
GDP Price Index	96.74	98.79	100.63	102.49	103.69	105.31
% GDP-PI increase		2.12%	1.86%	1.85%	1.17%	1.56%
X-factor		5.02%	5.02%	5.02%	5.02%	5.02%
Price cap adjustment (1+%GDPPI-X)		97.10%	96.84%	96.83%	96.15%	96.54%

Note:
Special access data obtained from NECA TRP filings, RORREV-1, lines 350-440.

Appendix B

Comparisons of Switched Access Unit Price and ROR

APPENDIX B

		1996	1997	1998	1999	2000	2001	1996 to 2001 % Change	Av Annual % Reduction over 5-Yr Period
ROR Carriers									
Alltel (exc. Aliant)	Sw Access Unit Price on July 1	$ 0.029532	$ 0.029077	$ 0.026933	$ 0.028058	$ 0.025240	$ 0.027081	-8.30%	-1.66%
	Interstate Rate Return	**11.94%**		**13.42%**		**11.43%**			
CenturyTel	Sw Access Unit Price on July 1	$ 0.044043	$ 0.042912	$ 0.037599	$ 0.037699	$ 0.035782	$ 0.037496	-14.87%	-2.97%
	Interstate Rate Return			**12.27%**		**13.06%**			
Puerto Rico	Sw Access Unit Price on July 1	$ 0.048404	$ 0.042615	$ 0.042272	$ 0.043615	$ 0.041477	$ 0.040416	-16.50%	-3.30%
	Interstate Rate Return	**10.89%**		**11.95%**		**9.63%**			
Price Cap Carriers									
Citizens 1	Sw Access Unit Price on July 1	$ 0.057604	$ 0.051157	$ 0.053603	$ 0.045440	$ 0.030175	$ 0.026671	-53.70%	-10.74%
	Interstate Rate Return	**15.42%**	**9.77%**	**17.87%**	**16.71%**	**19.68%**			
Citizens 2	Sw Access Unit Price on July 1	$ 0.089386	$ 0.088300	$ 0.068127	$ 0.061595	$ 0.029855	$ 0.025649	-71.31%	-14.26%
	Interstate Rate Return	**13.58%**	**13.25%**	**14.29%**	**15.74%**	**24.05%**			
Citizens 3	Sw Access Unit Price on July 1					$ 0.013523	$ 0.012246	-9.45%	-9.45%
	Interstate Rate Return				**15.56%**	**16.12%**			
Total of above Citizens study areas		$ 0.062528	$ 0.056779	$ 0.055940	$ 0.047977	$ 0.029650	$ 0.026254		
	Interstate Rate Return	**15.02%**	**10.49%**	**17.07%**	**16.50%**	**20.46%**			
Froniter-Tier 2	Sw Access Unit Price on July 1	$ 0.059349	$ 0.058059	$ 0.043039	$ 0.035596	$ 0.022597	$ 0.017291	-70.87%	-14.17%
	Interstate Rate Return	**26.91%**	**31.93%**	**45.45%**	**43.42%**	**38.95%**			
Sprint-MW	Sw Access Unit Price on July 1	$ 0.057574	$ 0.050676	$ 0.046673	$ 0.035544	$ 0.015787	$ 0.011656	-79.75%	-15.95%
	Interstate Rate Return	**21.53%**	**19.97%**	**19.86%**	**17.69%**	**18.88%**			
Sprint-NW	Sw Access Unit Price on July 1	$ 0.066993	$ 0.062586	$ 0.059983	$ 0.043954	$ 0.025109	$ 0.019183	-71.37%	-14.27%
	Interstate Rate Return	**34.55%**	**30.59%**	**32.54%**	**31.86%**	**32.77%**			
Sprint-SE	Sw Access Unit Price on July 1	$ 0.036248	$ 0.031592	$ 0.028120	$ 0.019152	$ 0.009030	$ 0.008137	-77.55%	-15.51%
	Interstate Rate Return	**19.30%**	**17.62%**	**15.87%**	**17.50%**	**23.32%**			
Sprint-Indiana	Sw Access Unit Price on July 1	$ 0.051051	$ 0.046323	$ 0.043401	$ 0.041331	$ 0.016719	$ 0.012327	-75.85%	-15.17%
	Interstate Rate Return	**24.30%**	**26.13%**	**24.19%**	**28.98%**	**38.21%**			
Total of above Sprint study areas	Sw Access Unit Price on July 1	$ 0.049301	$ 0.043863	$ 0.040253	$ 0.030546	$ 0.014021	$ 0.011019	-77.65%	-15.53%
	Interstate Rate Return	**22.07%**	**20.55%**	**19.90%**	**19.65%**	**22.70%**			
GTE SOUTH INC. - AL	Sw Access Unit Price on July 1	$ 0.050037	$ 0.047795	$ 0.043093	$ 0.034249	$ 0.016254	$ 0.012886	-74.25%	-14.85%
	Interstate Rate Return	**17.67%**	**23.49%**	**17.59%**	**22.23%**	**20.48%**			
CONTEL SO DBA GTE AL	Sw Access Unit Price on July 1	$ 0.036440	$ 0.036616	$ 0.031432	$ 0.031432	$ 0.013082	$ 0.012099	-66.80%	-13.36%
	Interstate Rate Return	**9.69%**	**15.31%**	**7.97%**	**10.88%**	**14.96%**			
CONTEL CALIF - AZ	Sw Access Unit Price on July 1	$ 0.072142	$ 0.070722	$ 0.036831	$ 0.041515	$ 0.021560	$ 0.018322	-74.60%	-14.92%
	Interstate Rate Return	**4.16%**	**14.17%**	**13.80%**	**15.57%**	**12.17%**			
GTE WEST COAST-CA	Sw Access Unit Price on July 1	$ 0.077878	$ 0.049977	$ 0.013610	$ 0.037777	$ -	$ -	-100.00%	-20.00%

Comparisons of Switched Access Unit Price and ROR

APPENDIX B

		1996	1997	1998	1999	2000	2001	1996 to 2001 % Change	Av Annual % Reduction over 5-Yr Period
	Interstate Rate Return	**-24.03%**	**-25.83%**	**-6.85%**	**-9.93%**	**-8.41%**			
GTE NORTHWEST INC-ID	Sw Access Unit Price on July 1	$ 0.053730	$ 0.064952	$ 0.059819	$ 0.051644	$ 0.020333	$ 0.015576	-71.01%	-14.20%
	Interstate Rate Return	**23.94%**	**30.52%**	**30.89%**	**32.24%**	**34.26%**			
GTE NORTH-IN(CONTEL)	Sw Access Unit Price on July 1	$ 0.040333	$ 0.041642	$ 0.048843	$ 0.037885	$ 0.017676	$ 0.013674	-66.10%	-13.22%
	Interstate Rate Return	**29.02%**	**33.26%**	**34.61%**	**41.40%**	**47.71%**			
CONTEL SO DBA GTE-IN	Sw Access Unit Price on July 1	$ 0.040333	$ 0.041642	$ 0.048843	$ 0.037885	$ 0.017676	$ 0.013674	-66.10%	-13.22%
	Interstate Rate Return	**29.02%**	**33.26%**	**34.61%**	**41.40%**	**47.71%**			
GTE SOUTH-KY(CONTEL)	Sw Access Unit Price on July 1	$ 0.044296	$ 0.043138	$ 0.038220	$ 0.035954	$ 0.016441	$ 0.014242	-67.85%	-13.57%
	Interstate Rate Return	**4.49%**	**6.62%**	**5.97%**	**9.55%**	**32.50%**			
GTE NORTH INC. - MO	Sw Access Unit Price on July 1	$ 0.040983	$ 0.043061	$ 0.036487	$ 0.025428	$ 0.013133	$ 0.006853	-83.28%	-16.66%
	Interstate Rate Return	**19.84%**	**17.88%**	**16.08%**	**11.82%**	**19.32%**			
GTE MW-MO(CONTEL SY)	Sw Access Unit Price on July 1	$ 0.049773	$ 0.045873	$ 0.042716	$ 0.031790	$ 0.014554	$ 0.006490	-86.96%	-17.39%
	Interstate Rate Return	**11.97%**	**12.39%**	**12.56%**	**15.29%**	**17.86%**			
KS ST-MO DBA GTE NO.	Sw Access Unit Price on July 1	$ 0.040983	$ 0.043061	$ 0.036487	$ 0.025428	$ 0.013133	$ 0.006853	-83.28%	-16.66%
	Interstate Rate Return	**19.84%**	**17.88%**	**16.08%**	**11.82%**	**19.32%**			
CONTEL-CA-CONTEL-NV	Sw Access Unit Price on July 1	$ 0.040381	$ 0.052874	$ 0.037976	$ 0.028627	$ 0.012154	$ 0.010376	-74.30%	-14.86%
	Interstate Rate Return	**25.50%**	**31.44%**	**24.01%**	**20.57%**	**28.79%**			
GTE SOUTH-NC(CONTEL)	Sw Access Unit Price on July 1	$ 0.044342	$ 0.039627	$ 0.035407	$ 0.031332	$ 0.015108	$ 0.012551	-71.69%	-14.34%
	Interstate Rate Return	**11.98%**	**16.63%**	**12.78%**	**19.87%**	**17.77%**			
MICRONESIAN TELECOMM	Sw Access Unit Price on July 1	$ 0.147447	$ 0.130564	$ 0.059950	$ 0.046119	$ 0.029991	$ 0.018616	-87.37%	-17.47%
	Interstate Rate Return	**15.49%**	**21.17%**	**34.45%**	**29.24%**	**1.87%**			
GTE NORTH-PA(CONTEL)	Sw Access Unit Price on July 1	$ 0.030114	$ 0.050225	$ 0.031191	$ 0.033277	$ 0.014901	$ 0.012406	-58.80%	-11.76%
	Interstate Rate Return	**40.55%**	**36.83%**	**45.97%**	**39.58%**	**40.98%**			
GTE NORTH-PA(QUAKER)	Sw Access Unit Price on July 1	$ 0.030114	$ 0.050225	$ 0.031191	$ 0.033277	$ 0.014901	$ 0.012406	-58.80%	-11.76%
	Interstate Rate Return	**40.55%**	**36.83%**	**45.97%**	**39.58%**	**40.98%**			
GTE SOUTH INC. - SC	Sw Access Unit Price on July 1	$ 0.042665	$ 0.044124	$ 0.038512	$ 0.030934	$ 0.013624	$ 0.011621	-72.76%	-14.55%
	Interstate Rate Return	**25.69%**	**24.06%**	**30.62%**	**30.70%**	**31.70%**			
GTE SOUTH-SC(CONTEL)	Sw Access Unit Price on July 1	$ 0.041969	$ 0.043852	$ 0.031752	$ 0.030934	$ 0.013624	$ 0.011621	-72.31%	-14.46%
	Interstate Rate Return	**17.41%**	**25.09%**	**30.62%**	**30.70%**	**31.70%**			
GTE SOUTH INC. - VA	Sw Access Unit Price on July 1	$ 0.050335	$ 0.046501	$ 0.031080	$ 0.018197	$ 0.012980	$ 0.011252	-77.65%	-15.53%
	Interstate Rate Return	**11.07%**	**23.76%**	**20.56%**	**9.94%**	**6.44%**			
GTE NW-WA (CONTEL)	Sw Access Unit Price on July 1	$ 0.053976	$ 0.060710	$ 0.053069	$ 0.045296	$ 0.017985	$ 0.015477	-71.33%	-14.27%
	Interstate Rate Return	**29.43%**	**31.85%**	**30.41%**	**39.17%**	**39.42%**			
Total of above GTE study areas	Sw Access Unit Price on July 1	$ 0.046060	$ 0.048131	$ 0.041814	$ 0.034681	$ 0.015536	$ 0.011879	-74.21%	-14.84%
	Interstate Rate Return	**17.84%**	**20.56%**	**20.47%**	**22.37%**	**25.40%**			

Comparisons of Switched Access Unit Price and ROR

APPENDIX B

		1996	1997	1998	1999	2000	2001	1996 to 2001 % Change	Av Annual % Reduction over 5-Yr Period
GTE-Texas	Sw Access Unit Price on July 1	$ 0.048549	$ 0.042149	$ 0.034368	$ 0.026471	$ 0.012257	$ 0.010579	-78.21%	-15.64%
	Interstate Rate Return	**11.53%**	**14.81%**	**16.43%**	**21.42%**	**21.74%**			
GTE-Florida	Sw Access Unit Price on July 1	$ 0.038965	$ 0.030768	$ 0.025483	$ 0.019673	$ 0.011708	$ 0.010913	-71.99%	-14.40%
	Interstate Rate Return	**15.17%**	**19.14%**	**14.58%**	**18.93%**	**21.81%**			
Cincinnati Bell	Sw Access Unit Price on July 1		$ 0.026605	$ 0.025069	$ 0.013717	$ 0.007777	$ 0.007282	-72.63%	-18.16%
	Interstate Rate Return		**20.04%**	**17.81%**	**25.45%**	**28.95%**			
Southern New England	Sw Access Unit Price on July 1	$ 0.034171	$ 0.030090	$ 0.027095	$ 0.018113	$ 0.010539	$ 0.009497	-72.21%	-14.44%
	Interstate Rate Return	**11.64%**	**12.70%**	**10.99%**	**12.12%**	**23.91%**			
Nevada Bell	Sw Access Unit Price on July 1	$ 0.035318	$ 0.034668	$ 0.032548	$ 0.021330	$ 0.014325	$ 0.005519	-84.37%	-16.87%
	Interstate Rate Return	**17.75%**	**19.47%**	**16.02%**	**19.26%**	**22.07%**			
Aliant	Sw Access Unit Price on July 1	$ 0.033774	$ 0.032397	$ 0.029330	$ 0.020841	$ 0.014317	$ 0.012703	-62.39%	-12.48%
	Interstate Rate Return	**14.95%**	**12.27%**	**15.02%**	**19.27%**	**12.00%**			

Appendix C

APPENDIX C

LOST ANNUAL GDP-PI MINUS X PRICE REDUCTIONS BEGINNING WITH 2001 ANNUAL FILING AS A RESULT OF PHASE II PRICING FLEXIBILITY

SPECIAL ACCESS AND DEDICATED TRANSPORT

COMPANY	Specials/Ded Trans $ Removed from Price Caps (A)	Date & Transmittal No. When Removed (B)	Lost GDP-PI minus X $ (C = A * .0413)
Ameritech	$126,179,560	5/15/01 TR# 1267	$5,047,182
Bell South	$690,713,421	12/26/00 TR# 575	$27,628,537
Pacific Bell	$134,730,620	5/15/01 TR# 35	$5,389,225
SWBT	$304,785,975	5/15/01 TR# 2864	$12,191,439
Verizon East	$1,123,582,027	6/18/01 TR# 55	$44,943,281
GTE	$81,244,052	6/17/01 TR# 52	$3,249,762
Sprint	$75,322,155	6/1/01 TR# 152&156	$3,012,886
Frontier of Rochester	$10,992,235	8/17/01 TR# 51	$439,689
TOTAL*	**$2,547,550,045**		**$101,902,002**

* Ameritech, Pacific Bell, SWBT, Verizon East, GTE, Qwest, and SNET have all filed for additional Phase II pricing flexibility in the past 90 days. These LECs are requesting that an additional $1.0 billion of Special Access and Dedicated Transport Revenues be removed from price caps. If their requests are granted, this would increase the lost GDP-PI minus X price reductions to over $140 million annually beginning with the 2002 annual filing.